# JITC/NSA EKMS TESTBED CONTACTS

To obtain more information about the JITC EKMS Testbed, its capabilities and procedures, please contact the JITC or NSA representatives at the following numbers:

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ELECTRONIC KEY
MANAGEMENT SYSTEM
(EKMS)
TESTBED



Joint Interoperability Test Command ATTN: Visitor Support Center Building 57305 Fort Huachuca, AZ 85613-7020

1-800-LET-JITC http://jitc-emh.army.mil

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Joint Interoperability Test
Command

#### **INTRODUCTION**

The Joint Interoperability Test Command (JITC) is the testing element of the Defense Information Systems Agency. The JITC is the Department of Defense (DOD) agency chartered to certify joint interoperability for DOD systems and equipment. JITC, in conjunction with the National Security Agency (NSA), has established an Electronic Key Management System (EKMS) Testbed at Fort Huachuca, AZ. This brochure outlines the capabilities and functions of the EKMS testbed.

#### **CAPABILITIES**

The Electronic Key Management System Testbed capabilities and functions:

- Standards Conformance Test Capabilities
  - •DS-101 Analyzer (RS-485 and RS-232)
  - DS-101 Emulator (RS-232)
  - Digitizing Oscilloscopes
  - Protocol Analyzers
- Interoperability Test Capabilities
- Operational Test Planning
  - Early Limited Operational Testing
- ♦ EKMS Test Library and Archive
- ♦ EKMS Unique Test Equipment/Systems
- ♦ EKMS Test Engineering Expertise
- ♦ EKMS Key Processor Depot Level Test Capabilities
- ♦ EKMS Test-Related "Help Desk"
- ♦ CINC Support Capabilities

- ♦ X.400 Expertise
  - ◆EKMS X.400 1988 Version
- ♦ Access to Distributed Testbed
  - The EKMS testbed can provide economical communications access to Service facilities.
- Central Facility (CF) Message Server (System simulation within the JITC)

The Electronic Key Management System Testbed future capabilities and functions:

- ♦ DTD 2000 Protocol Conformance, Technical Compliance, and Functional Testing.
- ◆ EKMS Benign Fill Testing (KG-184, ELWELL, etc.)
- Service EKMS Test Nodes (Army, Navy, Airforce)
- ♦ Component Life-Cycle Testing
  - **•**EKMS Regression Testing
  - ◆EKMS Test Patterns/Templates
  - ◆EKMS Key Processor Testing

## <u>DISTRIBUTED TEST NETWORKS</u> <u>CAPABILITIES</u>

- ♦ JITC Testbeds
- ♦ Worldwide Testbeds

Interconnected by high data rate (T1) circuitry, as well as capabilities of the Distributed Network Controller, which provide:

 Flexible, responsive connectivity of local and/or remote testbeds

- Distributed Technical Control
- Non-intrusive Monitoring
- System Diagnostics
- Security

Proposed connectivity to the EKMS testbed includes the CECOM Communications Security Logistics Activity, the Air Force Cryptologic Support Center, the Navy COMSEC Material Issuing Office, and the NSA Central Facility.

### JITC EKMS TESTBED

As the official fielding date approaches for the EKMS, the EKMS Testbed has found its primary mission evolving. While continuing Standards Conformance and Interoperability testing, we have added life-cycle testing to the mission. As the Warfighter fields this equipment and encounters the problems that occur with any complicated new system, the JITC is in the position of "training the trainers." The personnel from the Testbed have participated in numerous joint exercises, demonstrating both the effectiveness of the mature components and providing the Warfighter with valuable exposure to EKMS. The expertise gathered through the earlier testing is becoming crucial to the transition of existing procedures and systems to EKMS. With ready access to the JITC Distributed Network, the EKMS Testbed can recreate almost any equipment string in order to troubleshoot any questions/problems.

Presently, the JITC EKMS Testbed is being integrated into the NSA Customer Support program to continue Warfighter support to CINC/Service/Agency customers.